

ARIZONA STATE BOARD OF NURSING

Doug Ducey
Governor

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SUMMARY AND ANALYSIS OF ANNUAL REPORTS FROM ARIZONA NURSING EDUCATION PROGRAMS

Calendar Year 2015

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ANNUAL REPORTS FROM ARIZONA NURSING
EDUCATION PROGRAMS
CALENDAR YEAR 2015

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Arizona State Board of Nursing

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INTRODUCTION

The Mission of the Arizona State Board of Nursing is to protect the public health, safety and welfare through the safe and competent practice of nurses and nursing assistants.

ANNUAL REPORTS DATA

Since 2001, the Arizona State Board of Nursing (Board) has requested that pre-licensure nursing program submit an annual report for the purpose of gathering admission and graduation data. Commencing in 2003, programs supplied data regarding open student placements on the first day of class, faculty, post-licensure students, and number of applicants that met qualifications but were not admitted to the semester for which they applied. Attrition data has been provided since 2004. Starting in 2006, programs were asked to identify students who graduated on time, within 100%, 150% or took longer than 150% of the allotted time to complete the program. In 2008, programs were asked to identify the faculty to student ratio for didactic classes. In 2013, programs were asked to report on their faculty and student diversity. The annual reports cover a calendar year from January 1 to December 31. All 37 approved programs that had admissions or graduations in 2015 were provided surveys with all programs returning the survey (100% response rate). Surveys were not anonymous. The final part of each program's report contains the program administrator's attestation of compliance with Board education rules (A.A.C. Chapter 4, Title 19, Article 2).

DEFINITION OF TERMS	
Total Enrollment	The number of students enrolled in a pre-licensure nursing program.
Total Admissions	The number of students admitted to the first session of a nursing program, regardless of whether it was fall, spring, or summer.
Students Offered Placement	The number of students offered a placement in an admission cohort.
Students Registered for the First Clinical Course	The number of students that registered the first nursing clinical course—same as admissions for programs with a second admission process (after pre-requisites)—different for those with direct admissions to both the school and nursing program without pre-requisites to clinical courses.
Students Registered Who Did Not Attend	The number of students who registered for the first nursing clinical but never attended classes.
Open Placements in the First Nursing Clinical Course on the First Day of Class	The number of placements that were not filled on the first day of classes; this includes those who registered but did not attend.
Qualified Applicants Not Admitted to the Session for Which They Applied:	Number of applicants who were qualified for admission but were either denied, placed on a wait list, or admitted to a semester other than the one for which they applied.

Advanced Placement Admissions:	The number of students, usually LPNs, admitted to a session, other than the first clinical session, of an RN program.
Capacity	The total number of student placements available in a nursing program.
On-time graduation	The number of students who graduated in the time-frame of the published curriculum plan.
Repeated or dropped back	The number of students who took longer than their admission class to complete a nursing program because they either repeated a course, failed to follow the prescribed curriculum or dropped out/back for a period.
Faculty	Has the same meaning as R4-19-204—anyone teaching didactic and/or clinical nursing courses regardless of educational preparation or title.
Readmission	Means anyone who attended a particular nursing program, dropped out for a period and is now requesting a repeat admission into the program. The original cohort of this individual may have already graduated. The readmitted student would be counted as a person who took more than the ideal time to graduate because they are tied to the first admission cohort.
Session	The academic time period for course offerings; usually a semester (13-15 weeks) or quarter (9-10 weeks) but may vary depending on the institution.

ASSUMPTIONS/EXPLANATORY REMARKS

The following assumptions and explanations were made in compiling and interpreting the data:

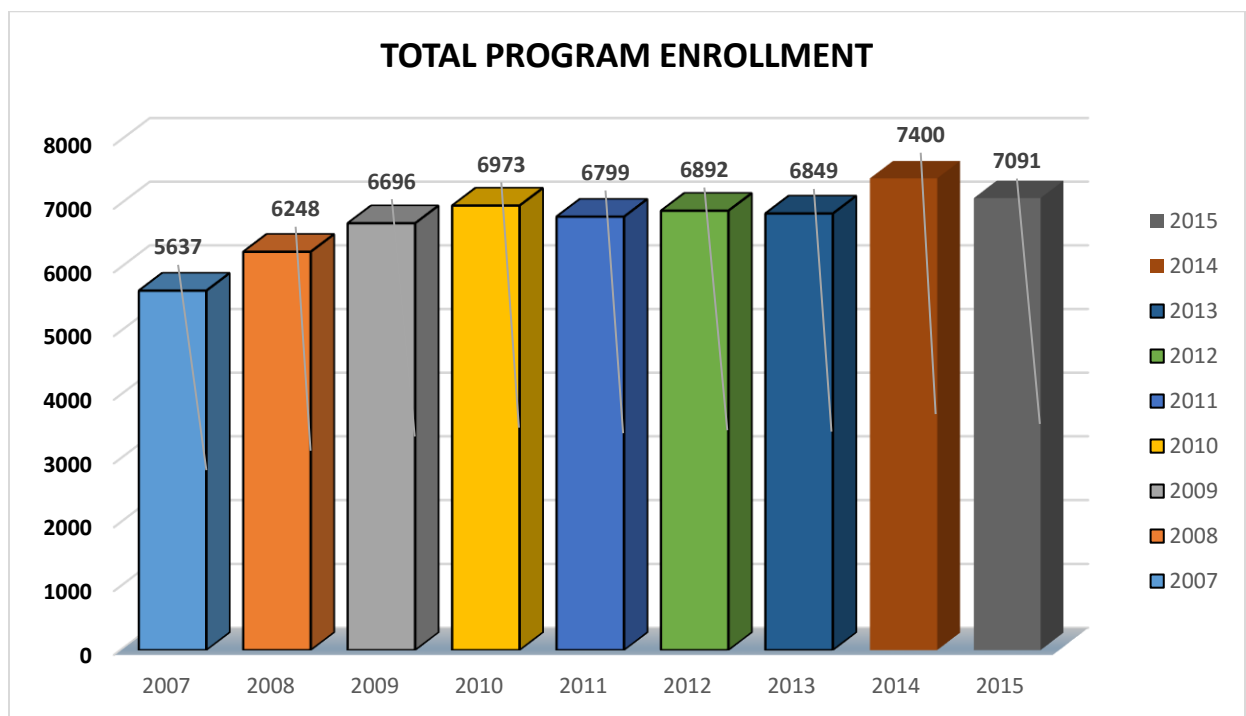
- Practical Nurse (PN) data only applies to traditional PN programs, not RN programs with an optional PN certificate.
- The number of students “qualified but not admitted” to a program does not represent an unduplicated or accurate count of students awaiting admission to a nursing program.
- Number of unfilled placements should not be interpreted to mean that these placements are available to other qualified students.
- This data applies only to in-state schools that offer pre-licensure nursing programs.
- The Board does not have jurisdiction over RN-BSN programs therefore only those with approved pre-licensure programs are included in this report.

DATA AND ANALYSIS

All data was entered into an Excel chart and graphic representations were made using PowerPoint and Microsoft Word. The original data was provided to nursing programs for any corrections and is posted on the Board's website at www.azbn.gov.

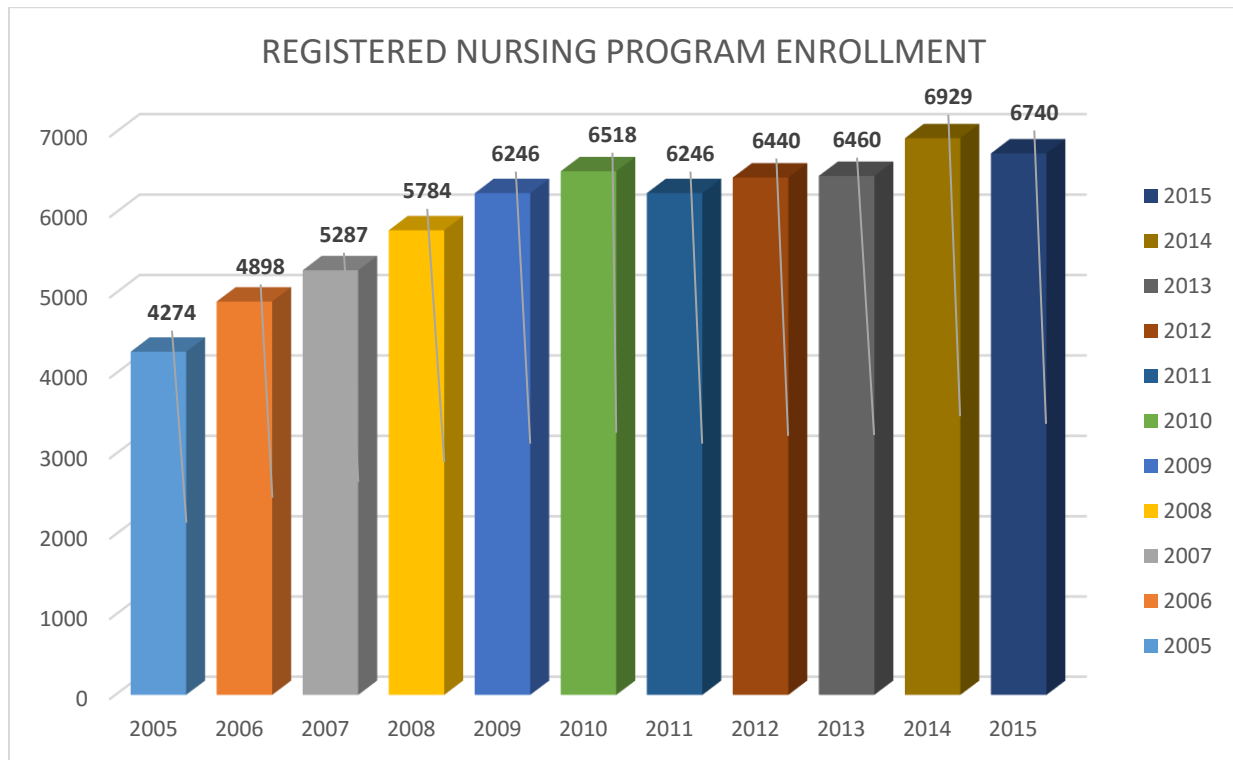
ENROLLMENT

The following figure displays enrollment in all nursing programs (RN/PN and public/private). Prior to 2011, total enrollment increased each year; enrollments stabilized in 2010 and have only varied slightly from year to year. However in 2015, total enrollments fell from 7400 to 7091 (309 students; 4% decline).



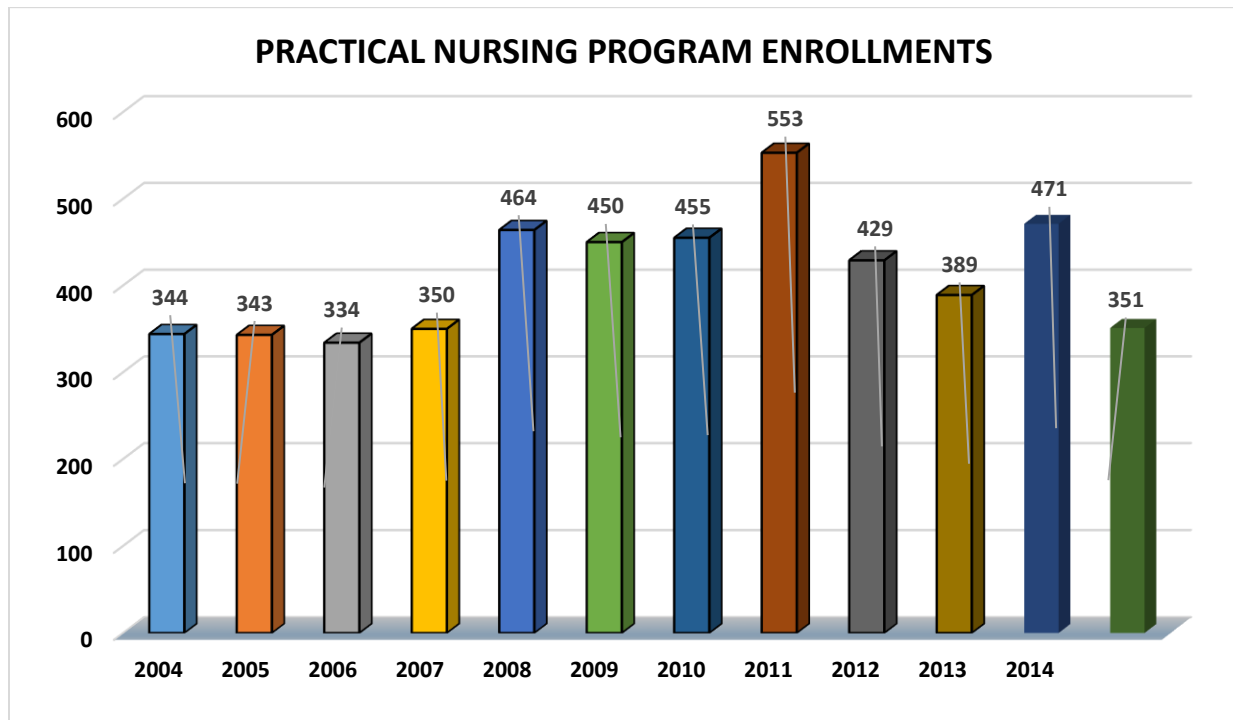
Registered Nurse Program Enrollment

In 2015 RN program enrollment decreased from 6929 to 6740 (189 students/2.7%).



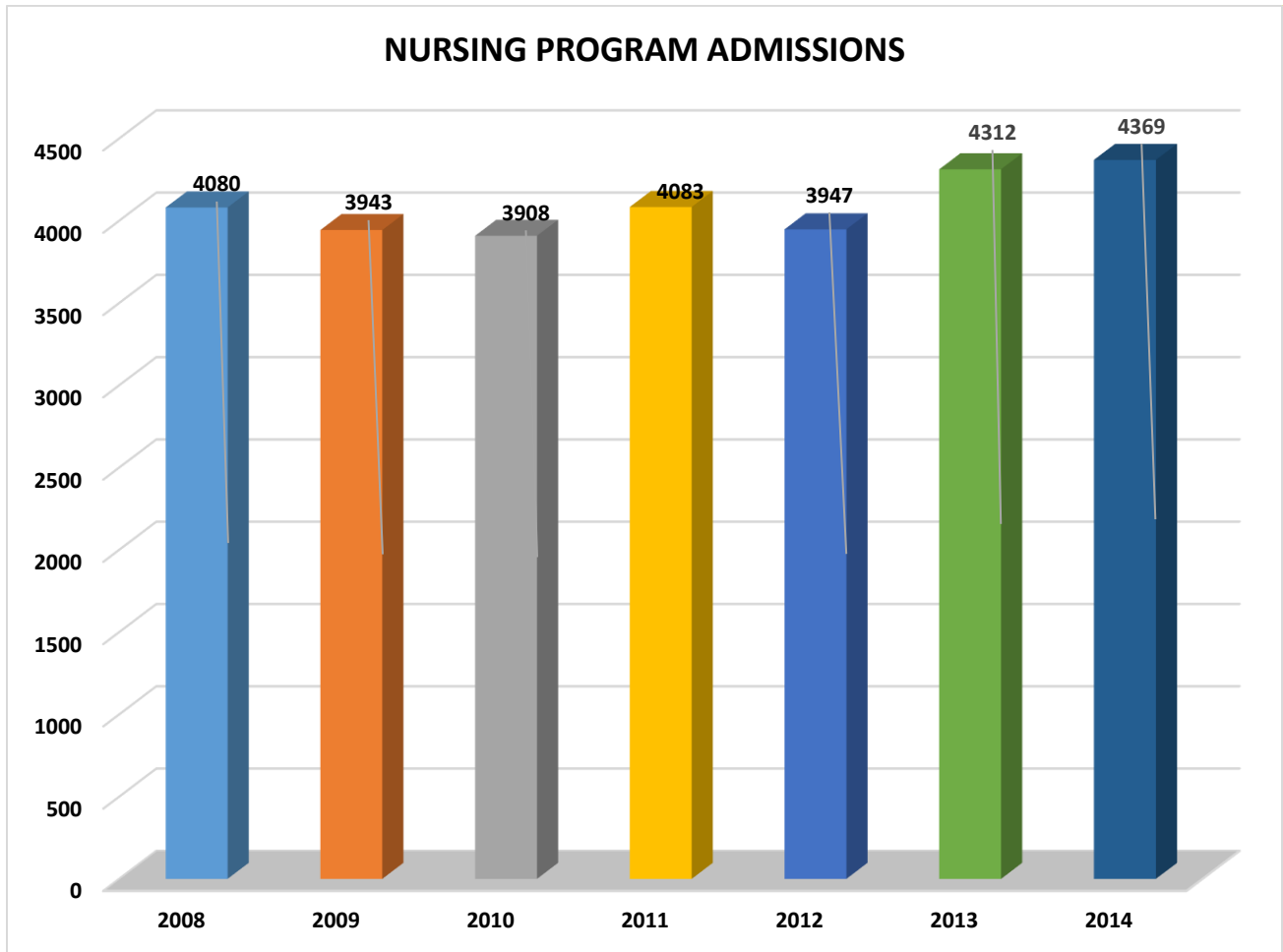
Practical Nursing Program Enrollments

Practical nursing (PN) enrollments decreased from 471 in 2014 to 351 in 2015 (120 students/26%). This is the lowest enrollment since 2004. There appears to be increasing demand for LPNs by health care industry and a potential LPN shortage. Despite this, health care facilities are refusing to offer clinical placements to PN students, making it difficult for PN programs to offer an appropriate curriculum, and PN programs are not filling to capacity.



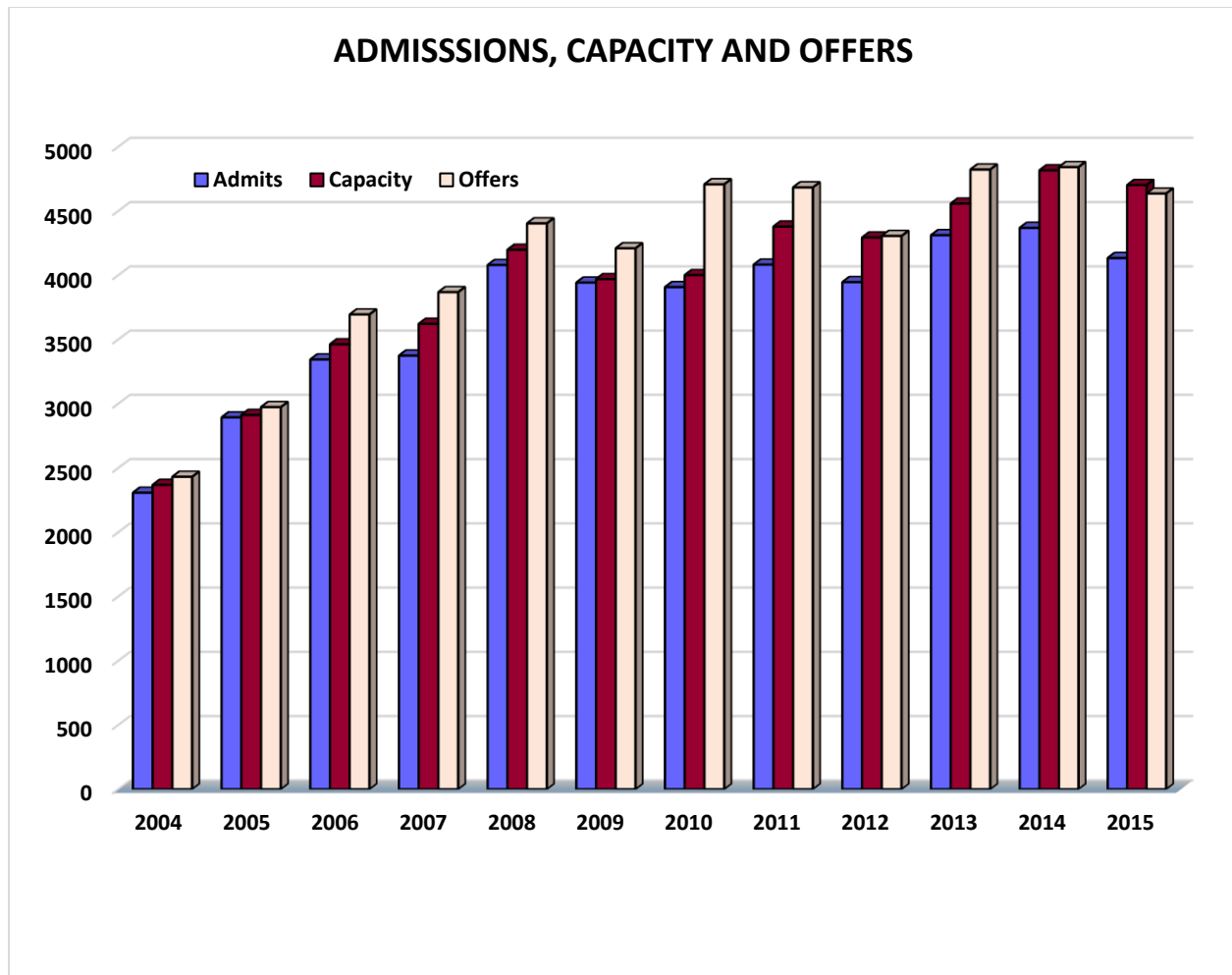
PROGRAM ADMISSIONS

In 2015 overall nursing program admissions decreased from 4369 to 4134 (235 students/5%) This number only includes only those students actually admitted and attending the first class of the program.



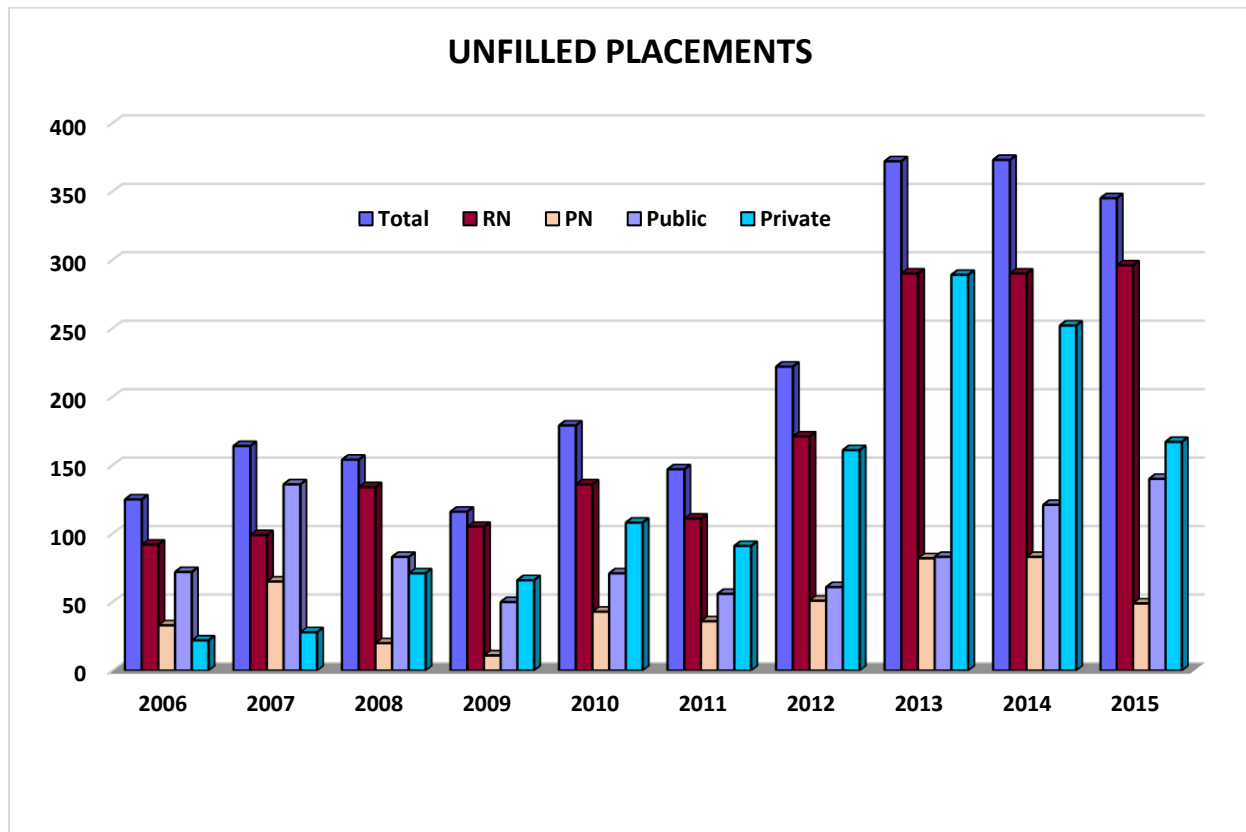
Total Nursing Program Admissions/Capacity/Offers

This admission data did not include students admitted after the first session of the nursing program, such as LPNs enrolled in the 3rd semester of an RN program. For 2004 through 2015, programs were asked to provide data on how many students were offered placements. For the first time since this data was measured, capacity exceeded placement offers. Arizona programs had a reported admission capacity of 4702, yet only offered 4636 applicants placements. This may be due to underreporting offers at one large program and another large program deleting an admission cycle which potentially had capacity for 200 students.



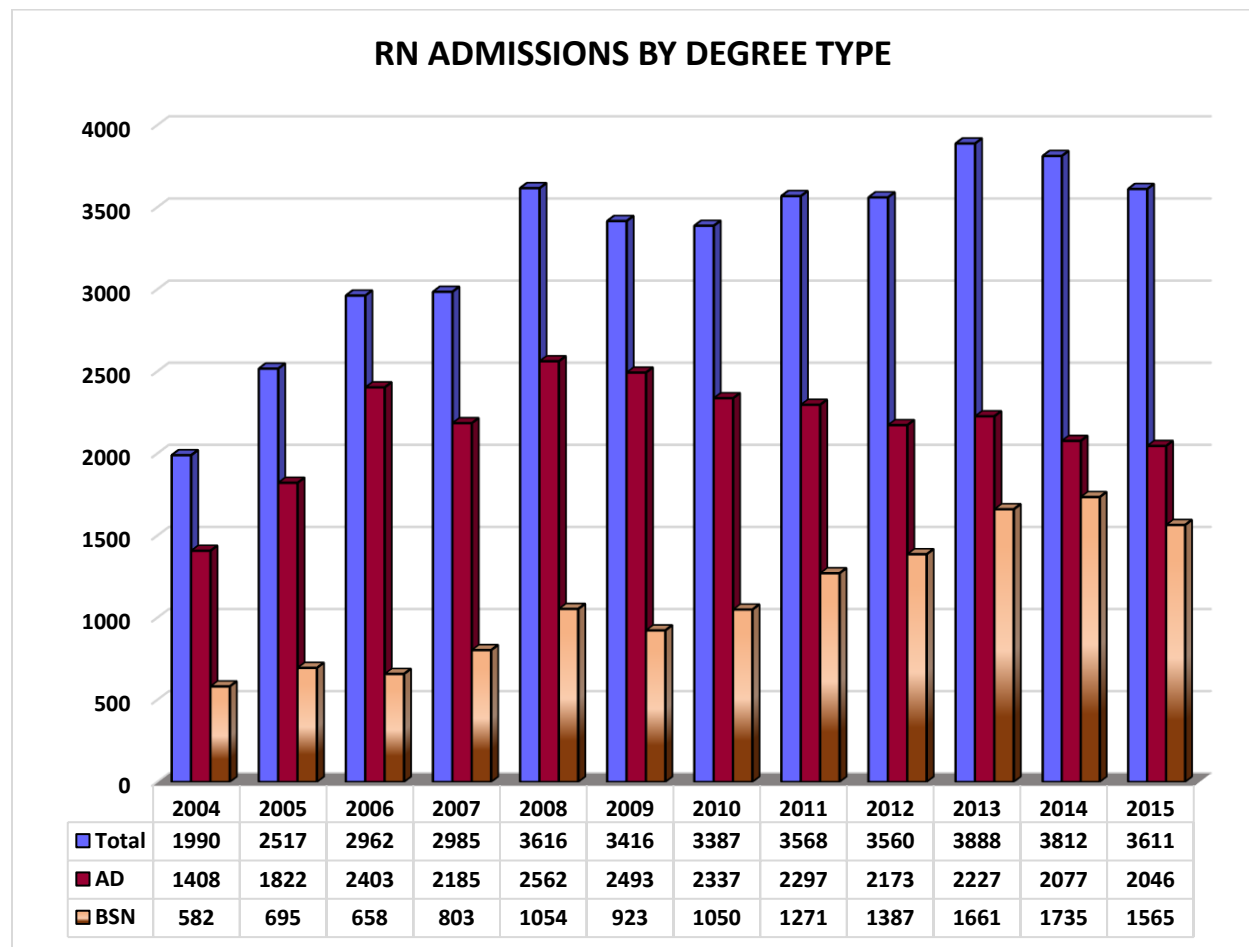
Total Unfilled Placements

In 2015, there were 345 unfilled placements, slightly lower than the 373 unfilled placements in 2014. This does not include the approximately 200 placements deliberately unfilled by one program. Open placements generally occur because persons who register do not attend (no shows) or programs do not attract sufficient qualified candidates to fill their projected enrollments. Of the unfilled placements, 296 were in RN programs and 49 in PN programs. Fifty-nine percent ($205/345=59\%$) of the vacancies were in private programs (146 RN/21 PN). There were 140 open placements in public programs (112 RN/28 PN).



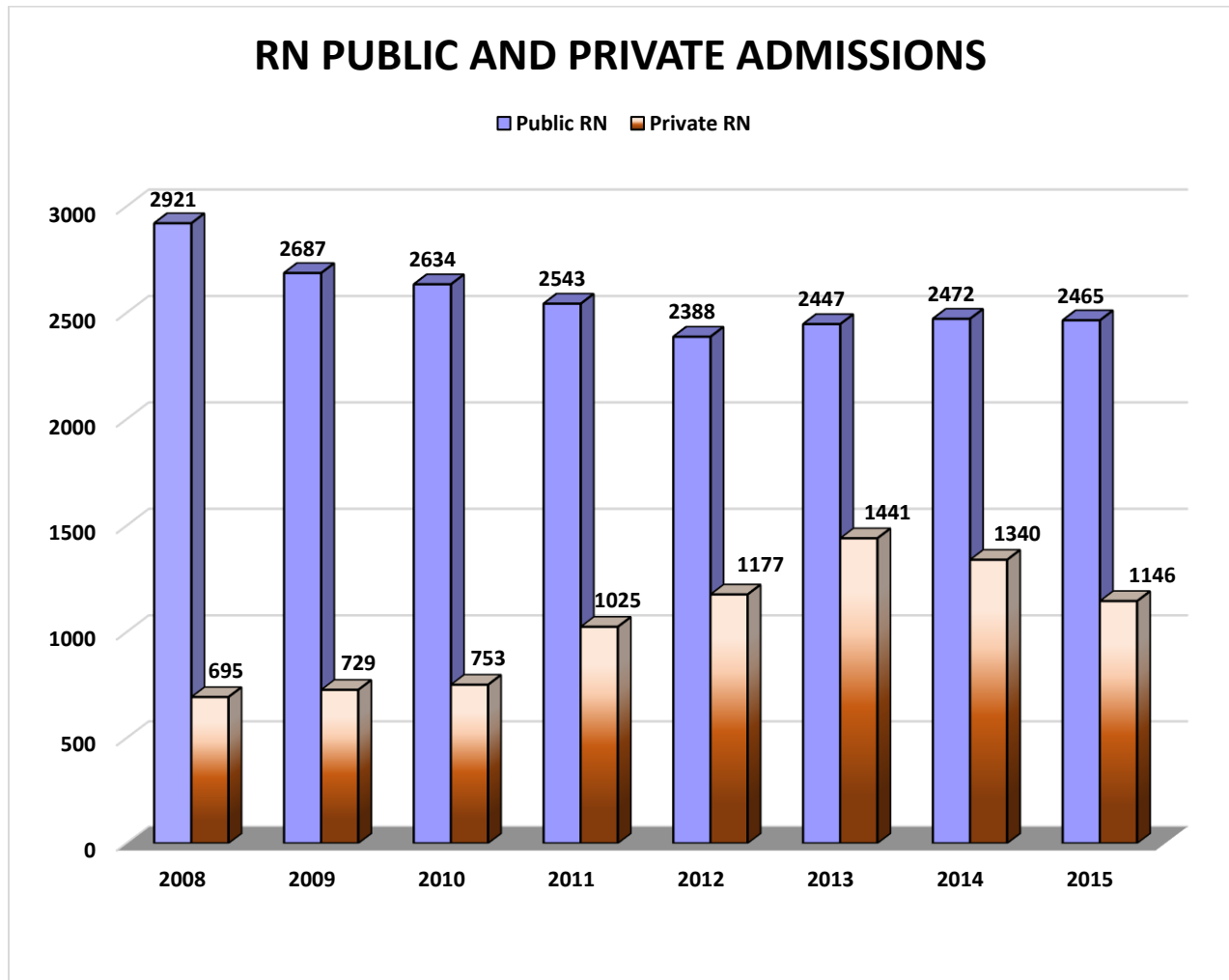
Registered Nurse Program Admissions by Degree Type

Registered nursing program admissions to the first semester of a nursing program (first nursing clinical course) were totaled and classified by type of program (Associate Degree/Baccalaureate). In 2015, admissions to the clinical course decreased from 3812 to 3611 a 5% decrease (201 students). Baccalaureate (BSN) program admissions decreased 10% from 1735 to 1565 (170 students), this decrease is nearly totally accounted for by the decision of one program to decrease admissions by 200 students. Associate degree program admissions decreased slightly (1.5%) in 2015 from 2077 to 2046 (31 students). BSN admissions accounted for 45.5% of total admissions an increase from 2013 where BSN admissions were 44% of the total, nearly an identical proportion to last year.



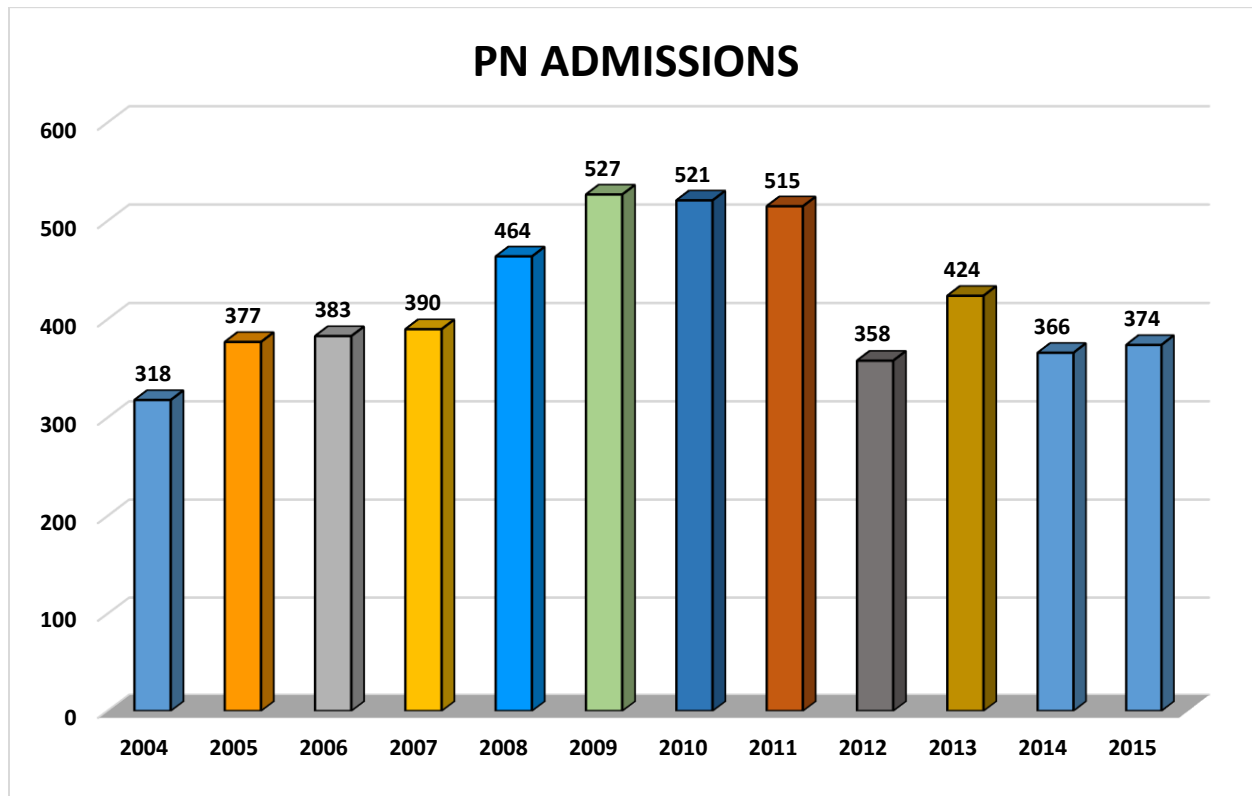
Public and Private RN Admissions

Public RN programs admissions to the RN clinical course sequence remained nearly identical at 2465 vs 2472; admissions to private RN programs decreased 14% from 1340 to 1146 (194 students). As stated previously, a large portion of the decrease in private program admissions is attributed to one private program voluntarily decreasing admissions by 200 students.



Practical Nursing Program Admissions

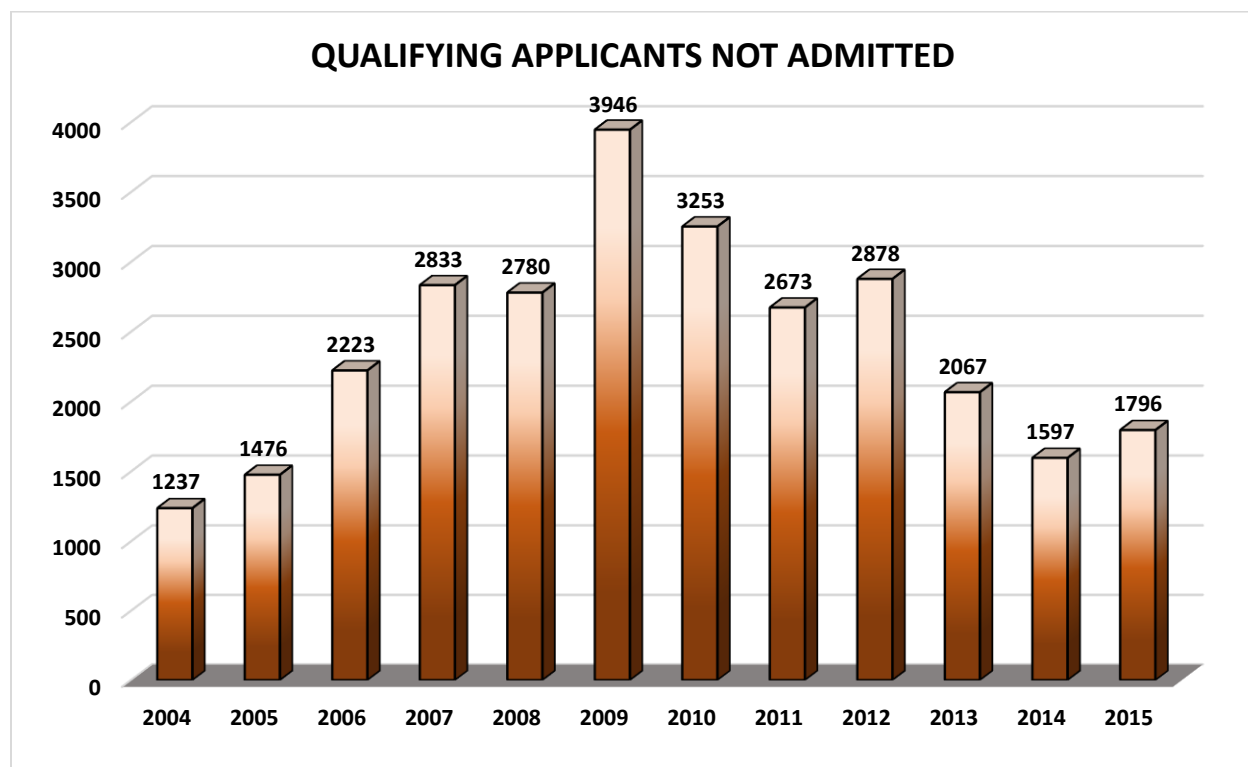
Practical nursing (PN) program admissions increased slightly (2%) from 366 in 2014 to 374 (8 students). According to program directors, there is strong demand for LPN graduates, however programs are constrained by lack of suitable clinical sites as more agencies are prohibiting LPN students from engaging in clinical experiences. Consumer demand for LPN education is weak, with only one program, GateWay Fast Track, reporting qualified students who were not admitted (92 students not admitted).



Qualified Applicants Denied or Deferred

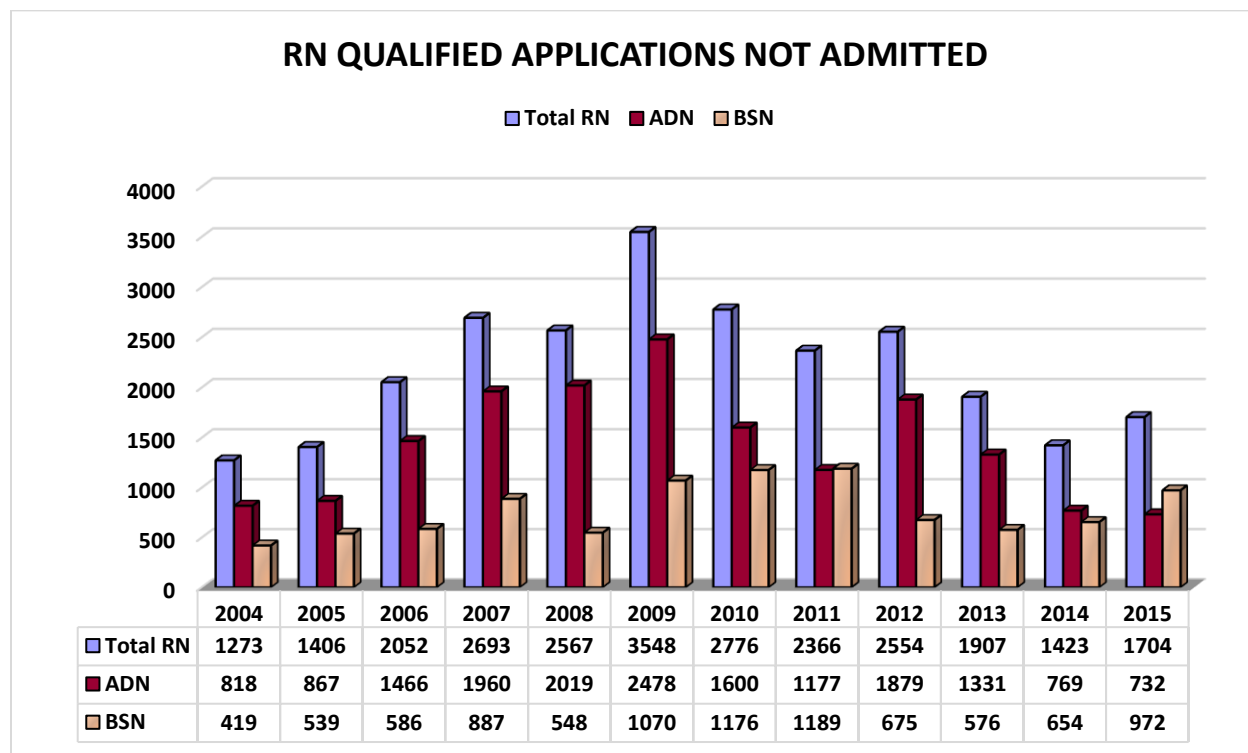
The number of students admitted was compared with the number of qualified applications that nursing programs denied or deferred for admission in a later semester. In 2015 there were 1796 nursing program applications that were not accepted or deferred due to insufficient openings in the program as opposed to 1597 in 2014. This represents a 13% increase of over last year (199 students). This increase again may be attributable to one program voluntarily suspending 200 admissions during a session of 2015. Programs are increasingly changing admission policies to decrease the wait time and eliminate the “wait list”. Innovations include merit based admissions and better tracking of wait-listed candidates. As in previous years, the majority of these applications were to RN programs (92%).

Due to differing admission standards, a student may qualify for admission in one program and not qualify for admission in another program. Many students also apply to multiple programs simultaneously. Taking into consideration the above factors, the number of qualified applications reported as denied/deferred is most certainly only an estimate of the number of actual students who were denied/deferred.

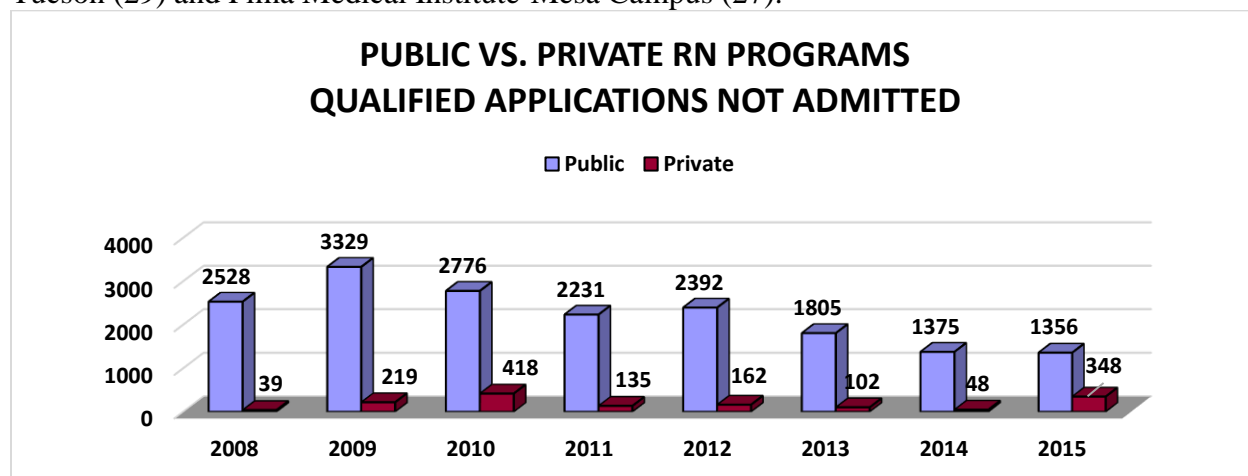


RN Programs

In 2015 there were 1704 qualified RN program applicants who were denied or deferred admission, a 20% increase from the 1423 reported in 2014. Those programs posting high numbers of denied/deferred applicants were: MaricopaNursing (over 8 campuses=542), University of Arizona (450), Grand Canyon University (264) and Arizona State University (125). In 2015 more BSN (972) applicants were denied a timely admission as compared to ADN (732) with ADN accounting for 43% and BSN accounting for 57% of deferred/denied admissions of qualified students.

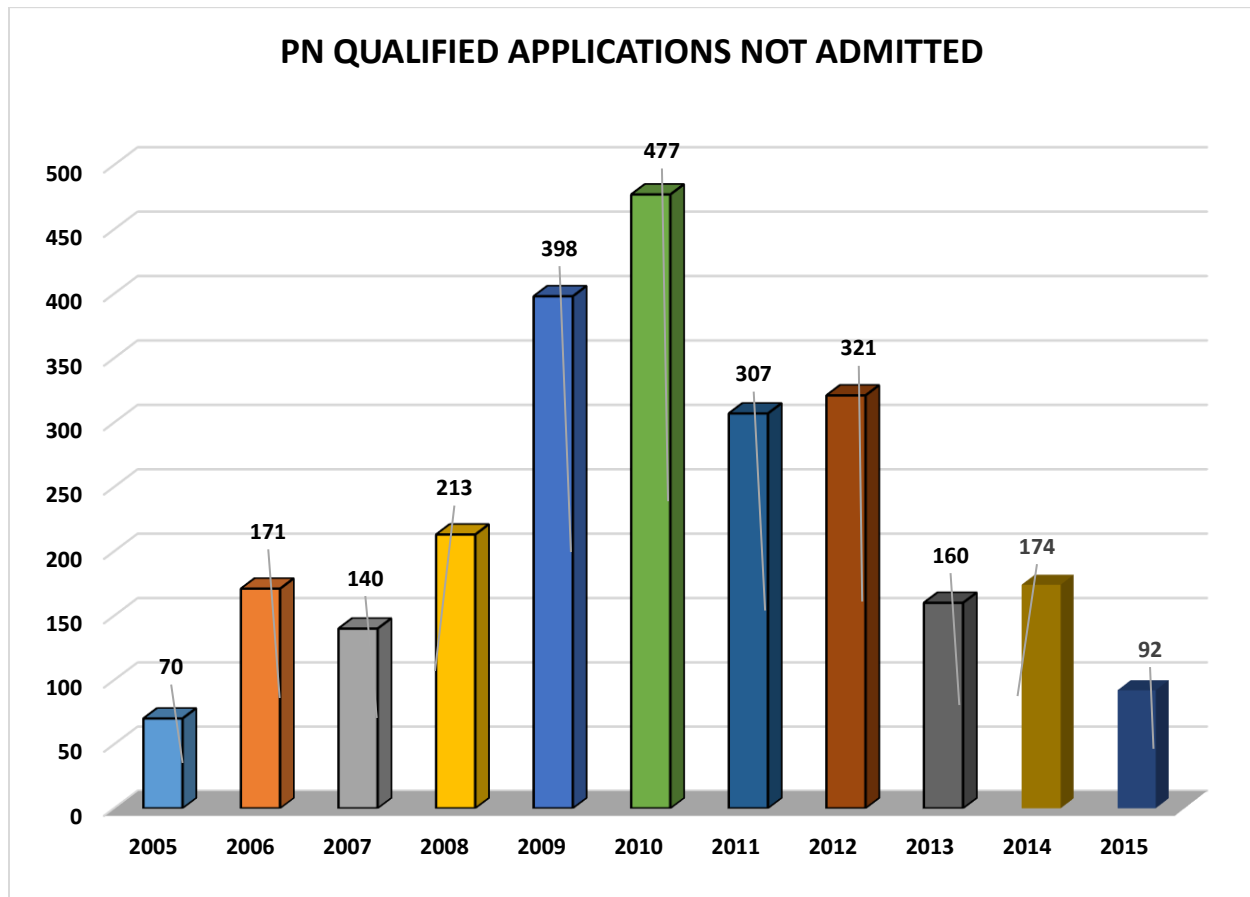


In 2015 as in previous years the greatest number of non-admitted qualified students applied to public RN programs 1356/1704 at 80%. Private programs reporting denying qualified students include: Grand Canyon University (264), Chamberlain College (28), Pima Medical Institute-Tucson (29) and Pima Medical Institute-Mesa Campus (27).



PN Programs

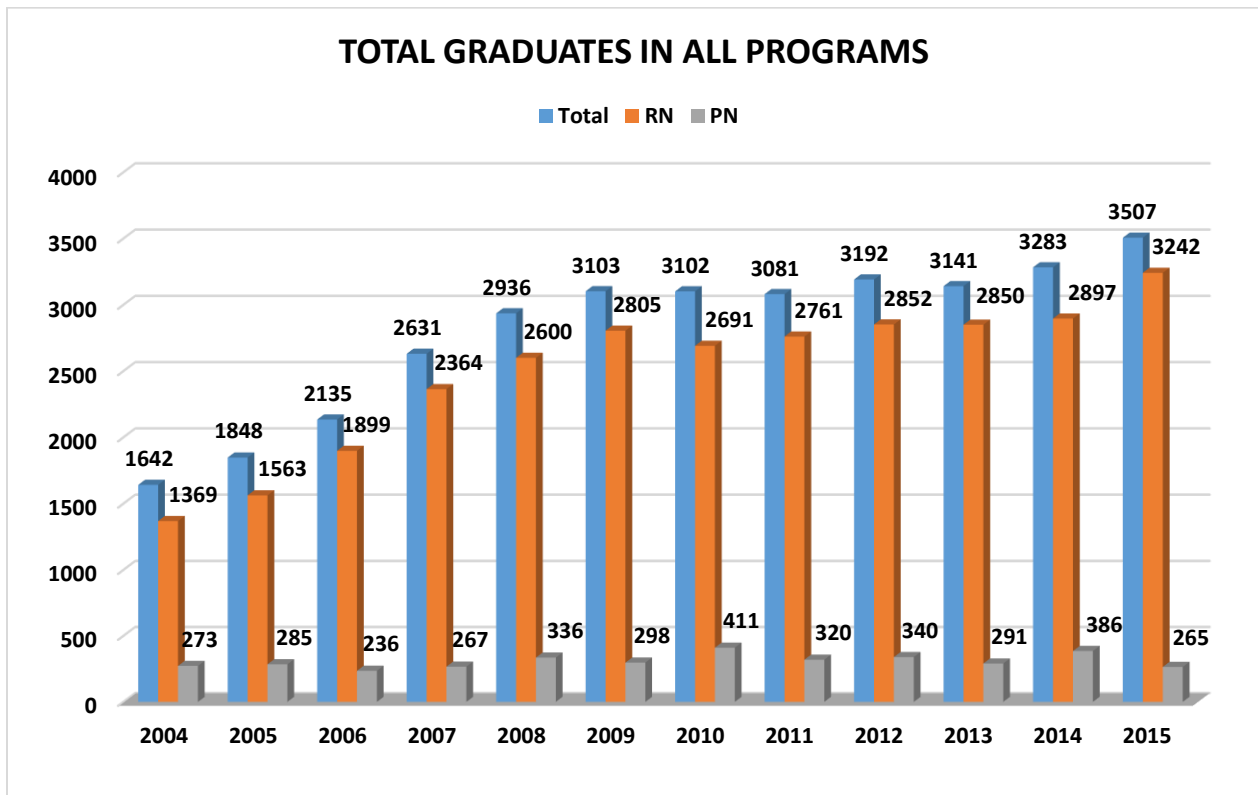
As stated before in this paper, there were 92 qualified applicants who were denied/deferred admission to a practical nursing program in 2015, a 89% decrease from the 174 applicants not admitted in 2014. All denied applications applied to GateWay Community College Fast-track Program. This unique program follows the Maricopa Community College tuition schedule and readily articulates into the GateWay Community College RN nursing program, unlike other LPN programs in Arizona, whose fees are based on instruction/clock hours and do not articulate as readily.



PROGRAM GRADUATES

Total Graduates

In 2015 total pre-licensure graduates increased by 6.8% from 3283 to 3507 (224 graduates). There was a 8.5% (255 graduates) increase in RN graduates (3242 vs 2987) and a 32% decrease in PN graduates from 386 to 265 (loss of 121 PN graduates).



RN Graduates

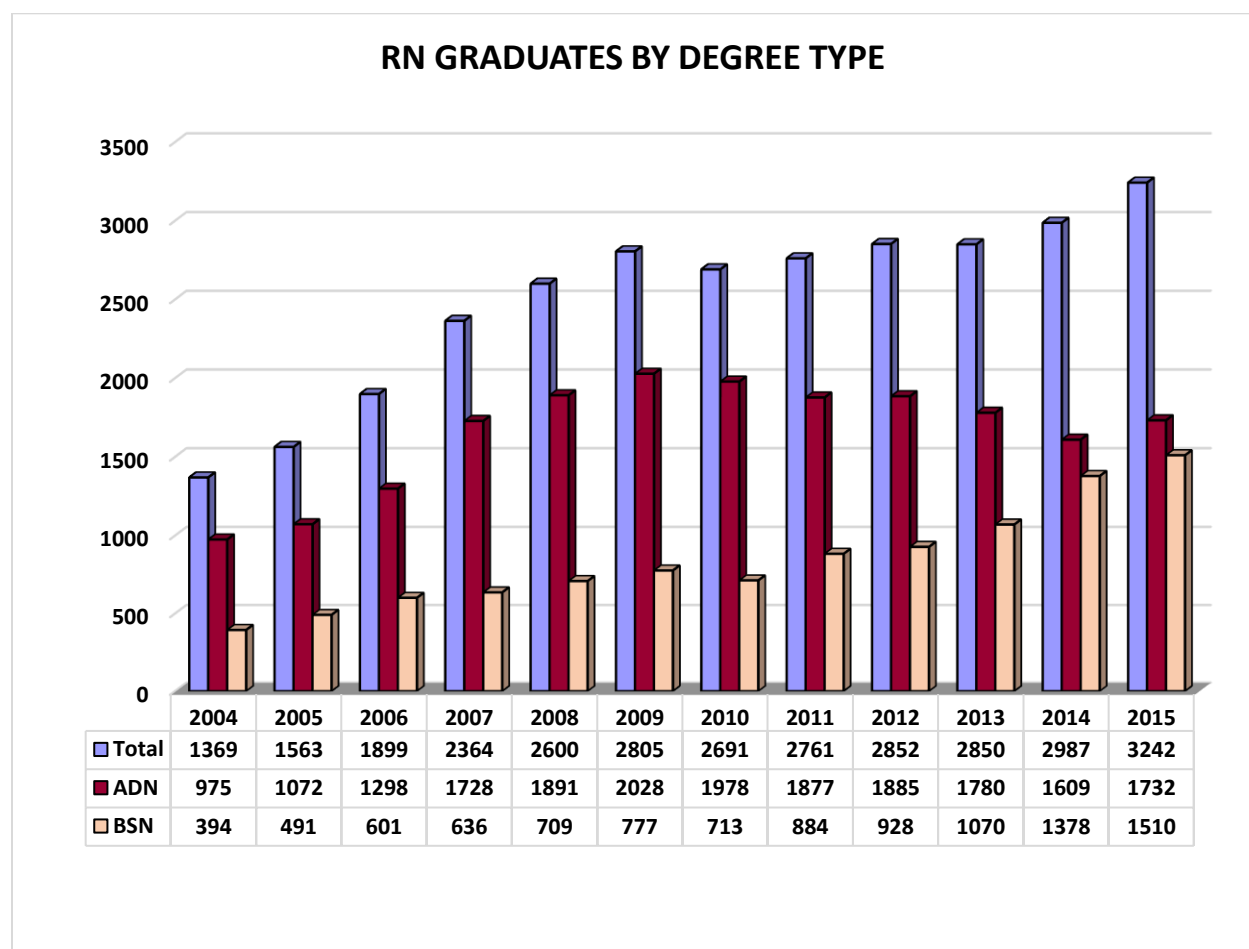
There was an 8.5% increase in total RN graduates. Associate degree graduates increased 7.6% (1732 vs 1609--123 graduates) and baccalaureate degree graduates increased 9.6% (1510 vs 1378--132 graduates).

The percent of Arizona RN graduates earning a BSN in 2015 was 46.5% a slight increase from the 46.1% reported in 2014. Nationally, BSNs accounted for 48.1% (70886/147287) of RN first-time test takers from non-diploma programs (NCLEX Reports – 2015). The IOM Report on *The Future of Nursing* (2011) calls for an increase in the percent of nurses with a baccalaureate degree to 80% by 2020. Aiken (2003) suggested that the minimal ratio of bachelor level nurses to associate level nurses should be 60/40. The National Advisory Council on Nurse Education and Practice (NACNEP), policy advisors to Congress and the US Secretary for Health and Human Services on nursing issues, recommend that two-thirds of the nursing workforce hold baccalaureate or higher degrees in nursing by 2010 (AACN, 2007). Benner, Stuphen, Leonard, and Day (2010) opined that overall nurses are undereducated. They called for master's degree preparation within 10 years of initial licensure for those licensed after 2012. Arizona BSN/AD ratios are increasing and are

probably underestimated by this report as some AD graduates are also earning a BSN concurrently in a concurrent enrollment program (CEP).

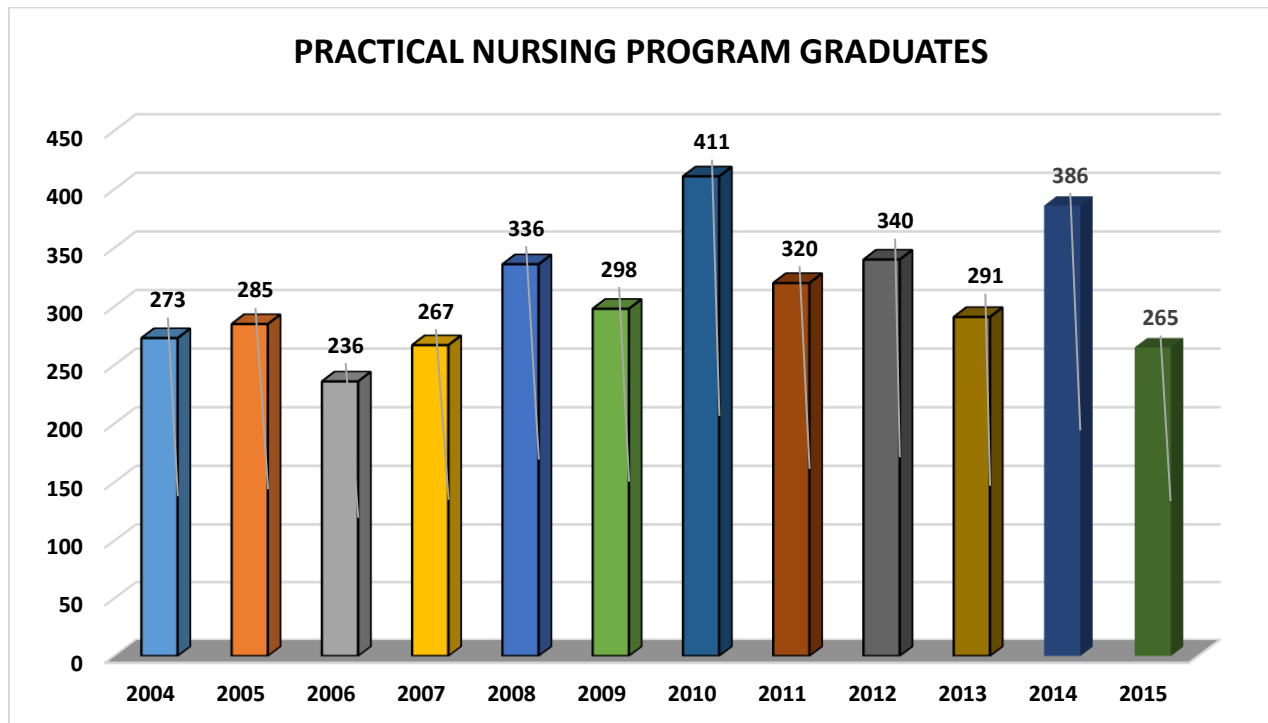
Highest Education of Renewing RNs

In 2016, it is estimated that approximately 63% of all RNs were educated at the Bachelor's level or higher, (Data from AZBN 2016 RN licensure renewals N=15,372). However approximately 10% of nurses reported holding bachelor's degrees in another field (not nursing), therefore approximately 54% of RNs in Arizona have bachelor's or higher in nursing degrees, an increase from 2014 (52%) and 2013 (45%).



PN Graduates

Practical nursing program graduates decreased 32% from 386 to 265 and are at 2007 levels.



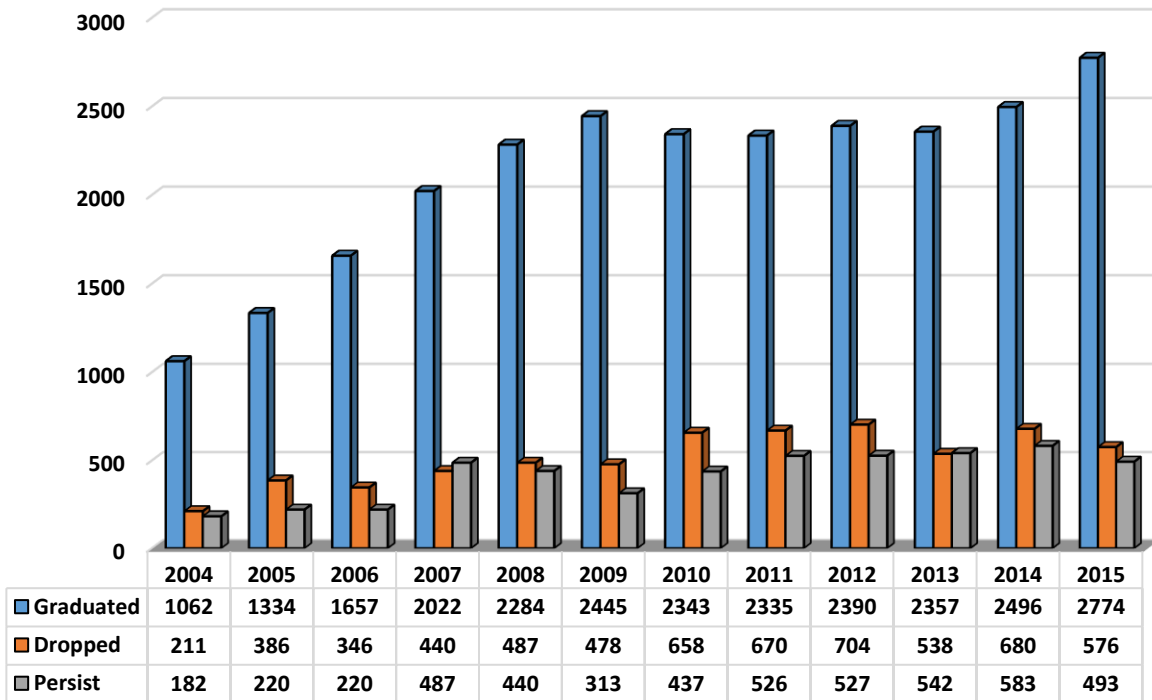
ON-TIME GRADUATION

On-time graduation (OTG) is computed by comparing cohort admission to the first clinical nursing courses with cohort graduation according to the program of study. (Divide the on-time graduates by the number of students admitted to their first clinical course). For 2015, 2987 students graduated on-time among a total of 4212 students admitted to the clinical portion of the program, giving an overall OTG for all types of programs of 71%. Of those that did not graduate, slightly less than half, 46%, (566/1225) are persisting in the program, with the other 54% dropping the program. On-time graduations among programs ranged from a high of 100% to a low of 0%. The minimum Board standard for OTG is 45%.

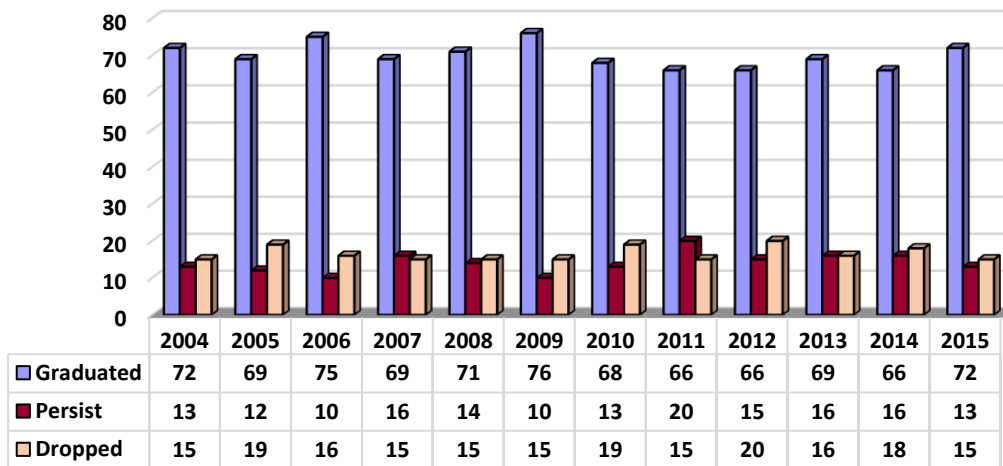
RN On-Time Graduation

RN OTG means have fluctuated between 76% and 65% in the past several years. In 2015, of a total of 3843 students admitted, 2774 (72%) graduated on time, 493 are still enrolled and 576 dropped the program, indicating that approximately half of those that do not graduate on time, persist in the program.

RN COHORT ATTRITION

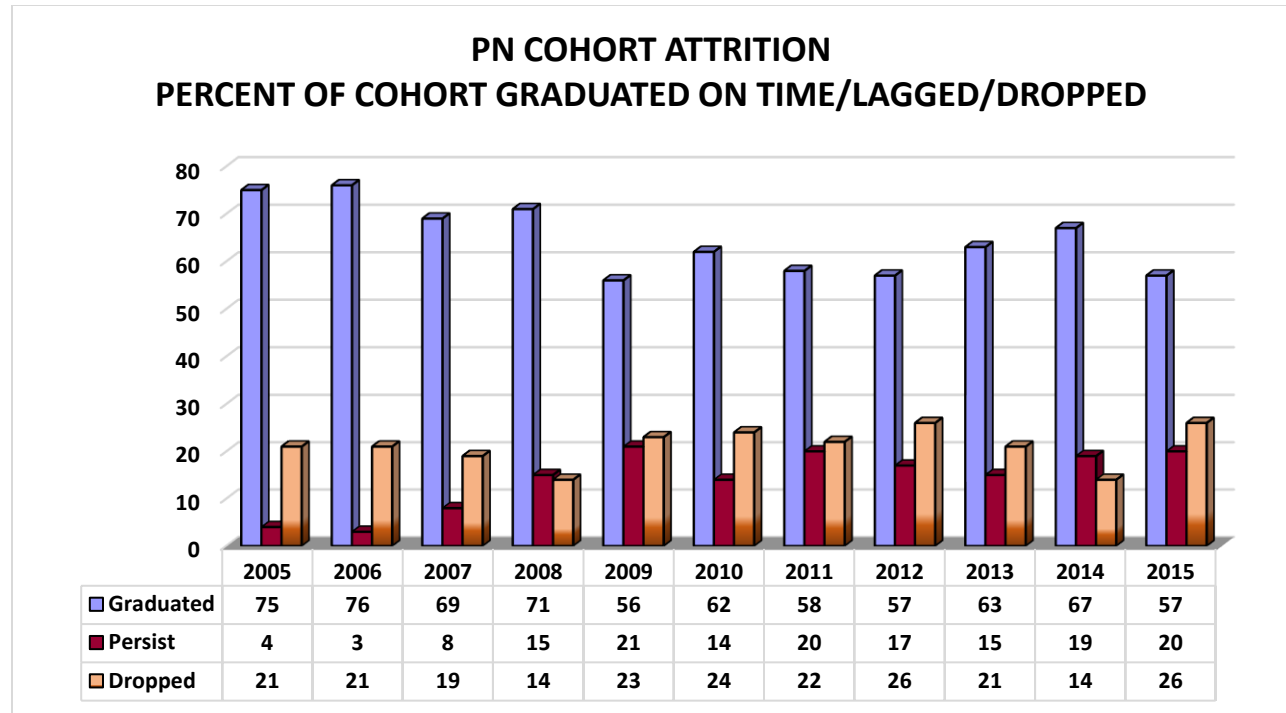


RN COHORT ATTRITION PERCENT OF COHORT GRADUATED ON TIME/LAGGED/DROPPED



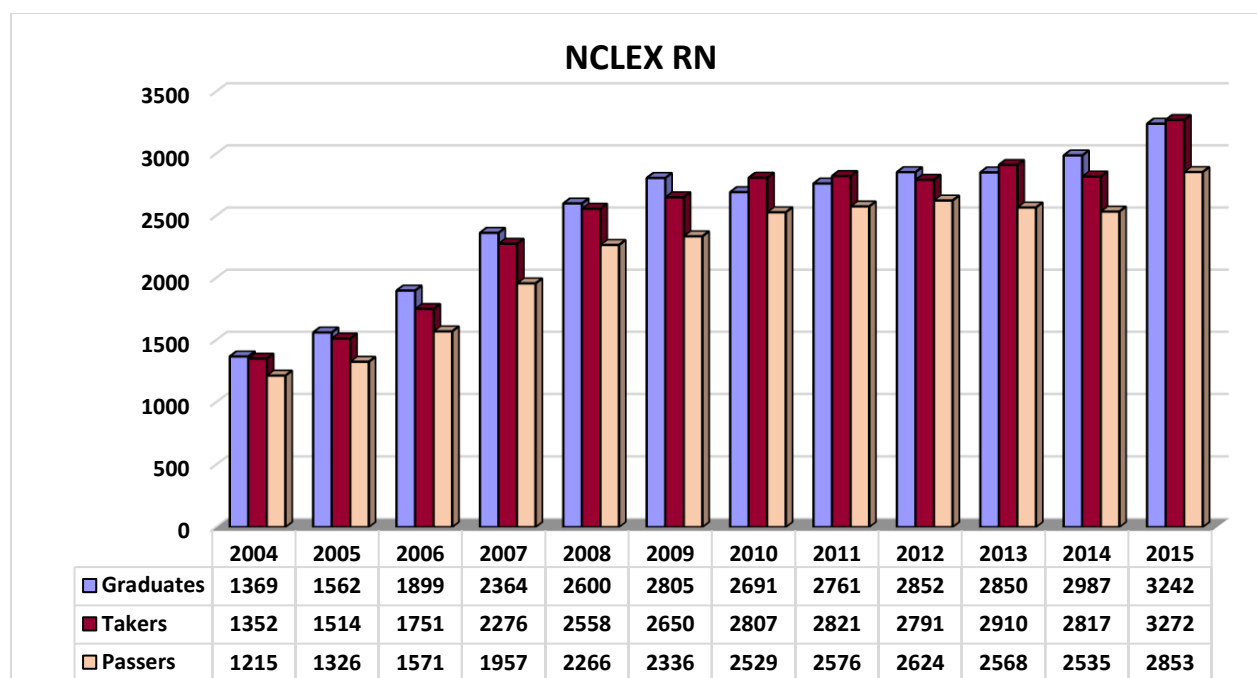
PN On-Time Graduation

In the 2015 graduating class for the PN programs (N=6), 57% percent completed on time (213 on-time graduates/ 369 admissions; 20% are still enrolled and 26% dropped the program. Program OTG ranged from 78% to 45% in 2015.



NCLEX ® RN EXAM

In comparing takers and passers of the National Council Licensure Examination for Registered Nurses (NCLEX-RN), there were more NCLEX takers in 2015 than in 2014, with a first time pass rate of 87.03% (last year's pass rate was 89.99%). The national first time pass rate in 2015 was 84.51%, an increase from the 81.79% pass rate in 2014. In comparing numbers of persons taking the exam with numbers of graduates it should be remembered that the number of students graduating in any year will differ from the number of NCLEX takers as students graduating in December may not take NCLEX until the following year. There are very few graduates who do not take the NCLEX exam.



PROGRAM OUTCOME INDEX©

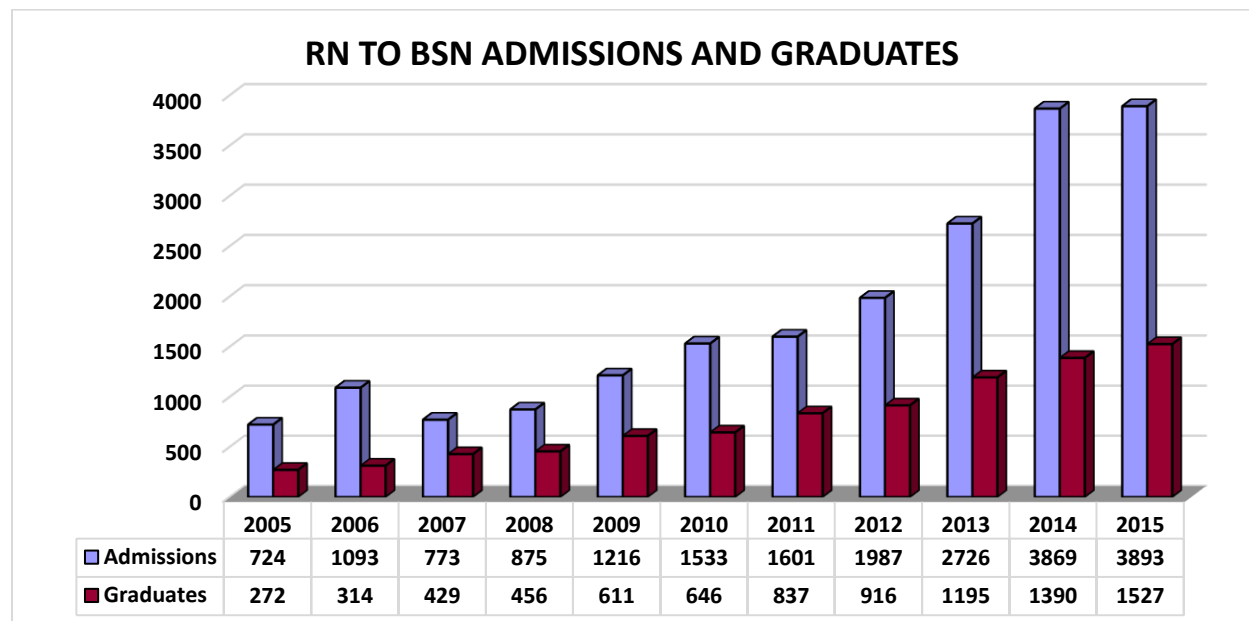
While first time NCLEX® pass rates are viewed by stakeholders as a measure of quality, if a program does not graduate the majority of admitted students in the prescribed time, the pass rate can become a measure of individual aptitude and self-teaching capacity, not overall program educational performance. Giddens (2009) points out, “*Is there anything really to celebrate with a nursing program with only a 50% persistence to graduation rate boasts of a 100% first time NCLEX-RN pass rate?*” The public and certifying agencies are interested in knowing attrition and persistence of students in programs. Starck, Love and McPherson (2008) call for measuring “on time” (e.g. according to the published curriculum plan) graduations as opposed to graduations within 150% of the allotted time. Conversely just taking “on time” graduate percentages without licensure exam results may reflect lack of rigor or grade inflation in programs. Combining and giving equal weight to these numbers provides a measure of both how the educational programs meet the learning needs of students and the academic rigor of the program. The Board is well aware that admission policies may also affect pass and completion rates as students who are not well grounded in essential reading and math skills will have difficulty attaining a deep understanding of nursing knowledge. The Arizona Administrative Code (R4-19-204), requires program faculty together with the nursing program administrator to set the admission and progression standards of the program. Faculty and administrators should provide educational opportunities sufficient to ensure that all admitted students graduate on schedule, pass NCLEX on the first attempt, and practice safely.

Board staff calculated on-time graduation rates from each program’s reported data and added that to the NCLEX first time 2015 pass rate obtained from NCLEX Reports to calculate a “Program Outcome Index©.” The “Program Outcome Index©” is a measure of the program’s ability to educate, and make eligible for licensure, admitted students in an optimal time-frame. The maximum index is 200 (100% NCLEX first-time pass rate and 100% on-time graduation). The mean index in 2015 was 150.62 with RN at 155.43 and LPN at 126.58. Index scores ranged from

a high of 183.67 to a low of 53.33. The top three programs under these criterion were: Pima Medical Institute-Mesa (183.67) closely followed by University of Arizona (183.62), and Northern AZ University (181.97). See Appendix A for a breakdown by school. Further study is warranted to determine trends and factors that influence the outcome index of nursing programs.

RN TO BSN PROGRAMS

In 2015, Arizona RN to BSN programs admitted 3376 (3431 in 2014) traditional RN-BSN students and 517 (vs 438 in 2014) concurrent enrollment program (CEP) students. Therefore a total of 3893 students were admitted to RN-BSN track programs, nearly the same as in 2014 (3869).

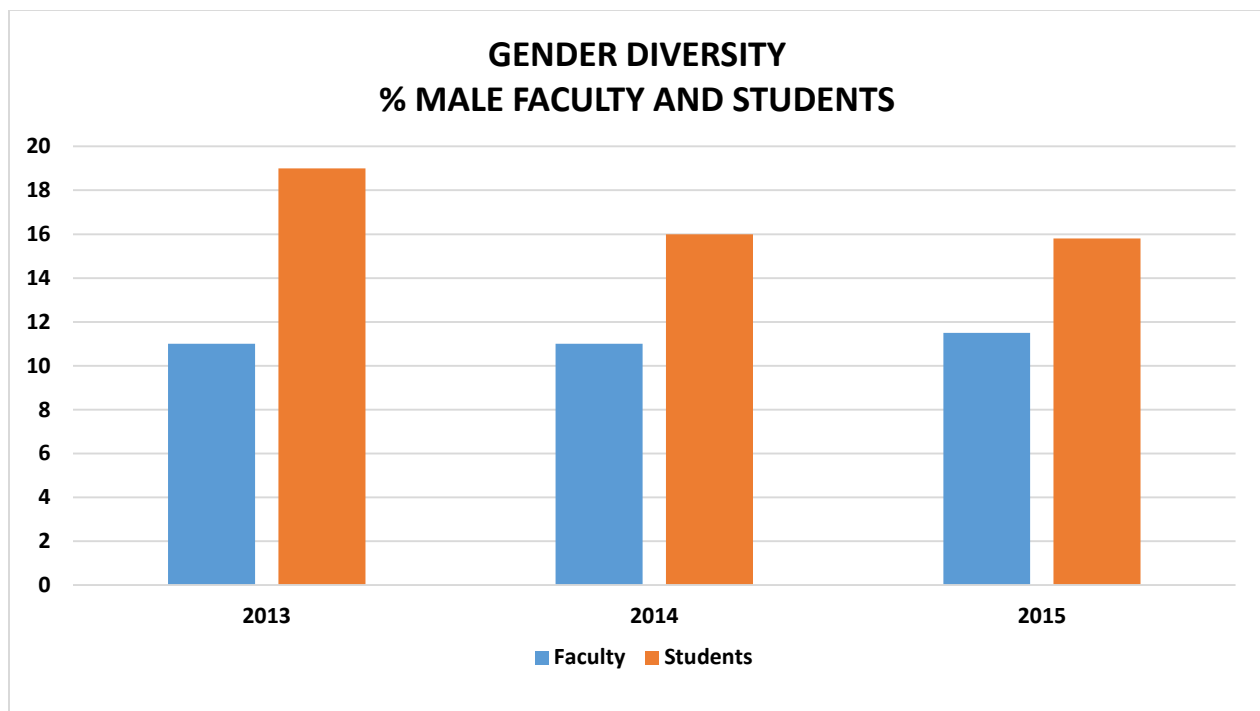


Graduates – RN to BSN

In 2015 there were 1527 (vs. 1390 in 2014) graduates of RN-BSN programs, a 10% increase from 2014. The majority of students graduated from a traditional program (1253), with 274 being CEP graduates. In any given year however, graduates outnumber admissions by more than double. This should improve with the increases in CEP students. Caution is warranted in interpreting these data because some schools have CEP arrangements with out of state or non-regulated programs that are not part of this survey. Also, school personnel report that may students are admitted but never formally enroll and attend classes in traditional RN to BSN programs.

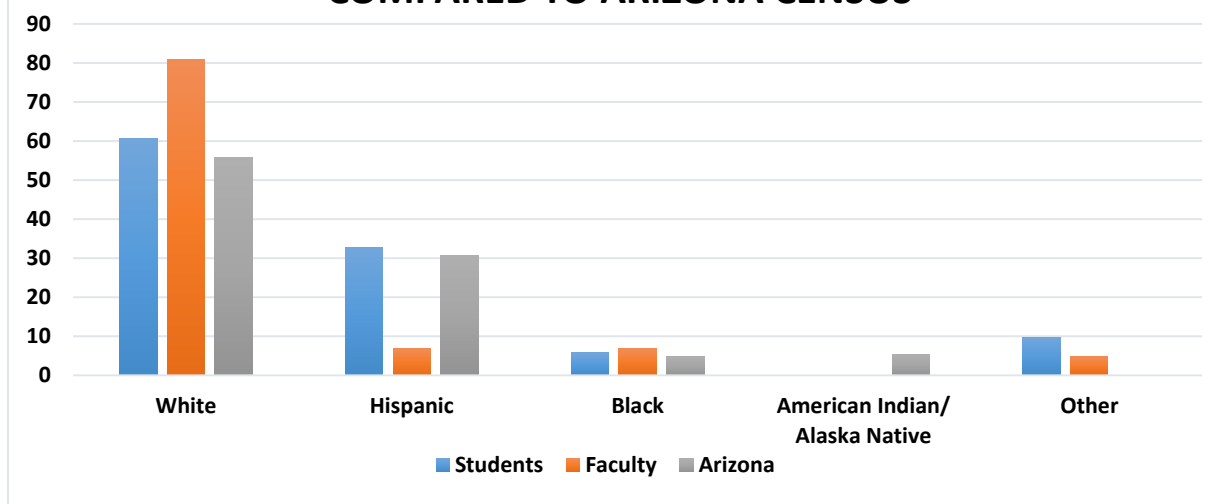
Student and Faculty Ethnicity

In 2013 the Board started asking programs to provide ethnicity data for both students and faculty. Programs were instructed to include all students and faculty, not just pre-licensure program participants. It is important to gather and report this data as a measure of diversity in nursing programs and as part of the national minimum data set. The first chart below compares student and faculty diversity in gender. The second chart compares student and faculty ethnicity with the Arizona population. For comparison purposes, raw numbers were converted to percentages. In 2015, gender data was provided for 6946 students and 1838 faculty. In terms of gender, females still make up the majority of both faculty and student populations and neither group is representative of the state as a whole, which according to the 2015 census report (US Census Bureau, 2015), is 50.3% female. Males are more prevalent in the student population as compared to the faculty population (11.5% vs 15.8%). The proportion of males in nursing programs appears to be decreasing.



In 2015, race/ethnicity was provided for 7087 students and 1785 faculty. The category “other” includes the categories of Asian, American Indian/Alaska Native, Native Hawaii/other Pacific Islander, and “more than one”. In terms of race and ethnicity, students are more diverse than faculty and mirror the 2013 Arizona population most closely. Faculty remain overwhelmingly white with “Black/African American” populations being slightly over-represented proportional to the population. Students are closer to the Arizona population demographics in Hispanic and Black/African American representation. “American Indian/Alaska Native” account for 5.3% of Arizona residents in 2015 (U.S. Census Bureau, 2015). This population is underrepresented in both students (1.9%) and faculty (0.6%).

ETHNICITY NURSING PROGRAMS COMPARED TO ARIZONA CENSUS

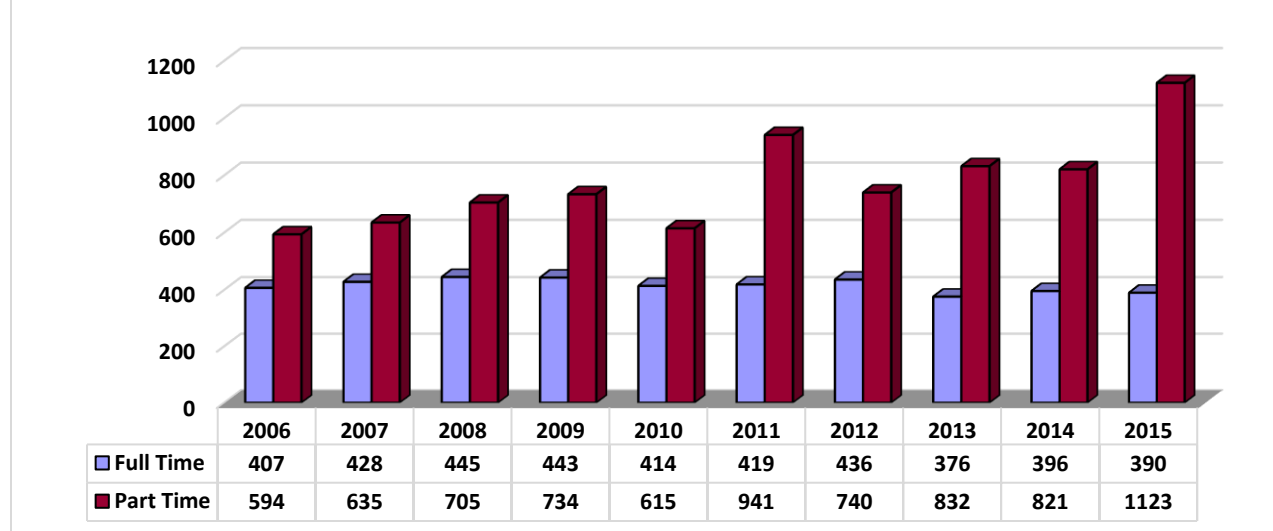


NURSING PROGRAM FACULTY

In 2015, there were 390 full-time faculty members in AZ nursing programs vs. 396 in 2014. There were 1123 part-time faculty, 38% more than the 821 part time faculty reported in 2014.

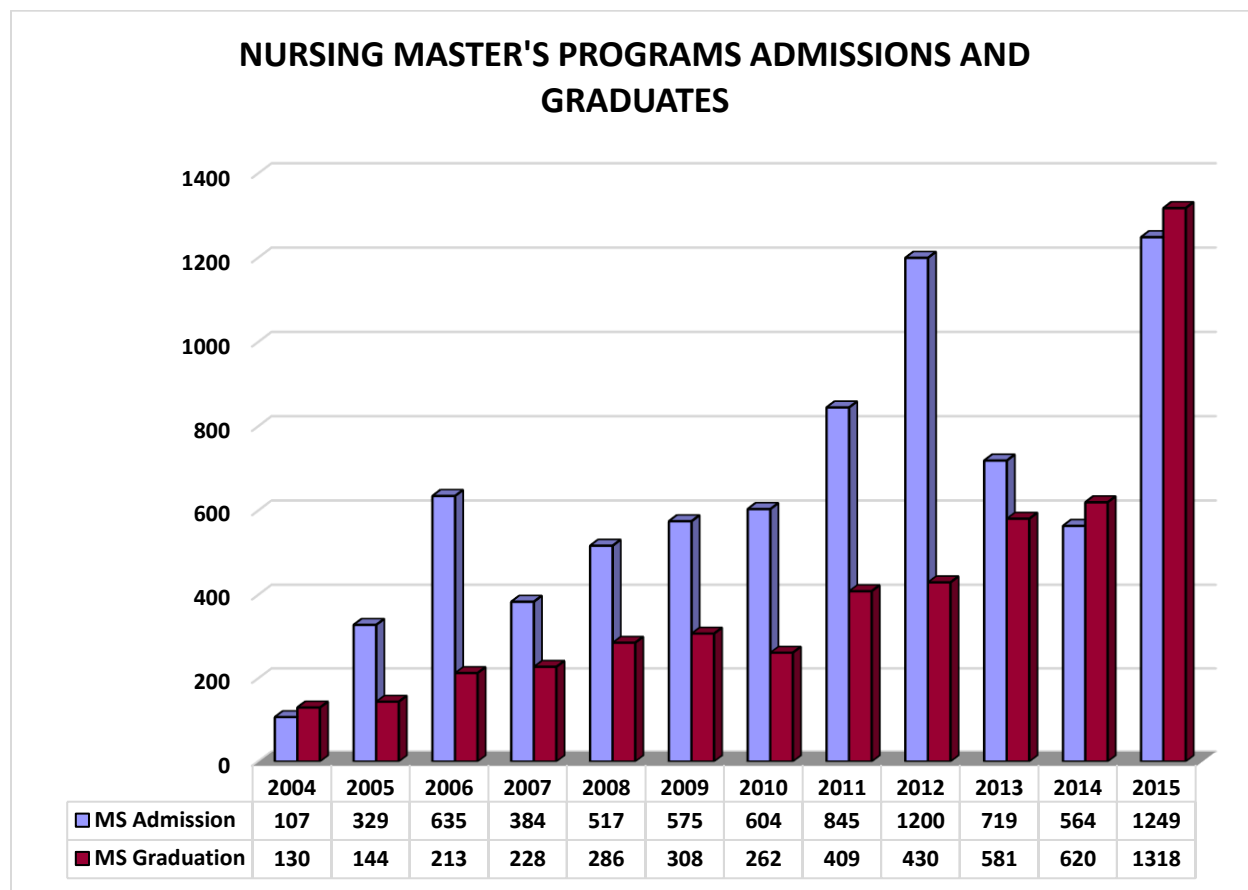
Full faculty vacancies remained essentially unchanged in 2015. There were 21 unfilled full-time positions in 2015 vs. 19 in 2014. Part time faculty vacancies decreased from 15 in 2014 to 6 in 2015. Programs were asked to provide their average faculty-to-student ratio in didactic courses. Full-time (didactic) faculty to student ratios ranged from a high of 1:40 to a low of 1:7. The average ratio was 1:21, identical to the ratio in 2013 and 2014.

FILLED FACULTY POSITIONS AND VACANCIES BY YEAR



GRADUATE NURSING EDUCATION

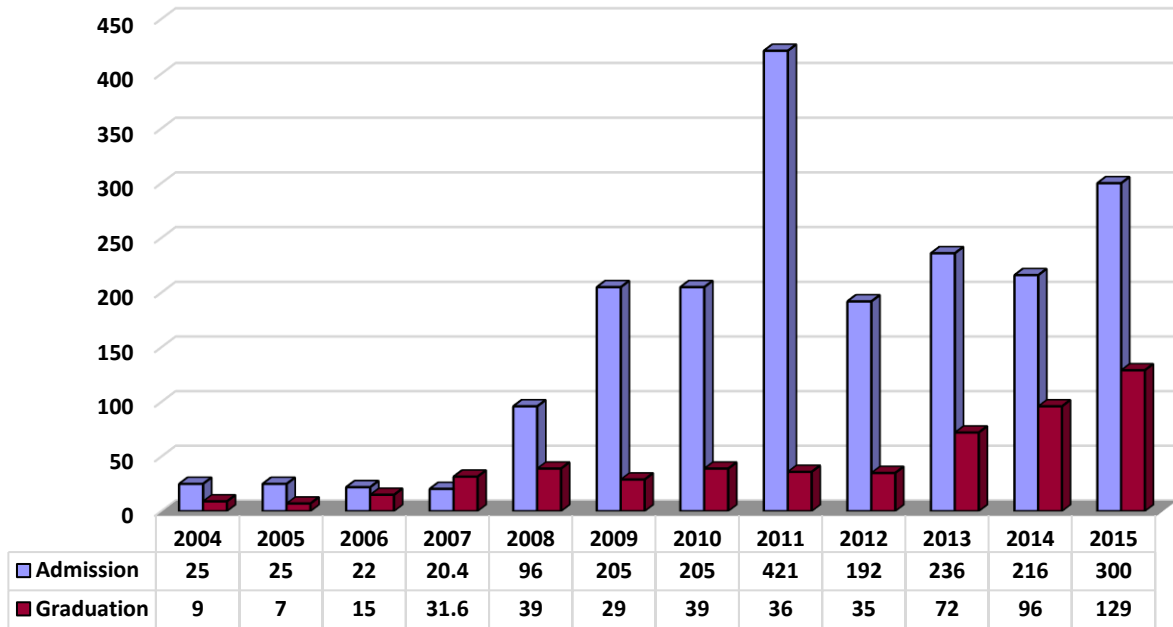
Admissions to master's degree nursing programs increased by 120% from 564 in 2014 to 1249 in 2015. This may be due to more nurses are returning for a non-APRN related master's degree and some programs continuing to offer APRN master's degrees without enrollment in a DNP program. Master's degree nursing graduates increased by 125% in 2015 from 620 to 1318. Only 31% of the graduates (403) were nurse practitioner graduates.



Doctoral Admissions and Graduates

Five AZ nursing programs admitted doctoral students in 2015: Arizona State University, University of Arizona, Northern Arizona University, University of Phoenix and Grand Canyon University. Admissions to doctoral programs doubled in 2009 and again in 2011 although that was thought to be due to an error in reporting by a program with a large national presence. Doctoral admissions increased by 39% in 2015 from 216 to 300. Doctoral graduates increased 33% from 96 in 2014 to 129 in 2015. Eighty-one percent (n=105) of doctoral degrees were doctoral in nursing practice (DNP) degrees. The IOM Future of Nursing Report (IOM, 2011) recommends doubling the number of doctoral degrees by 2020. As with master-level education, admissions attrition and graduation do not track with any degree of certainty.

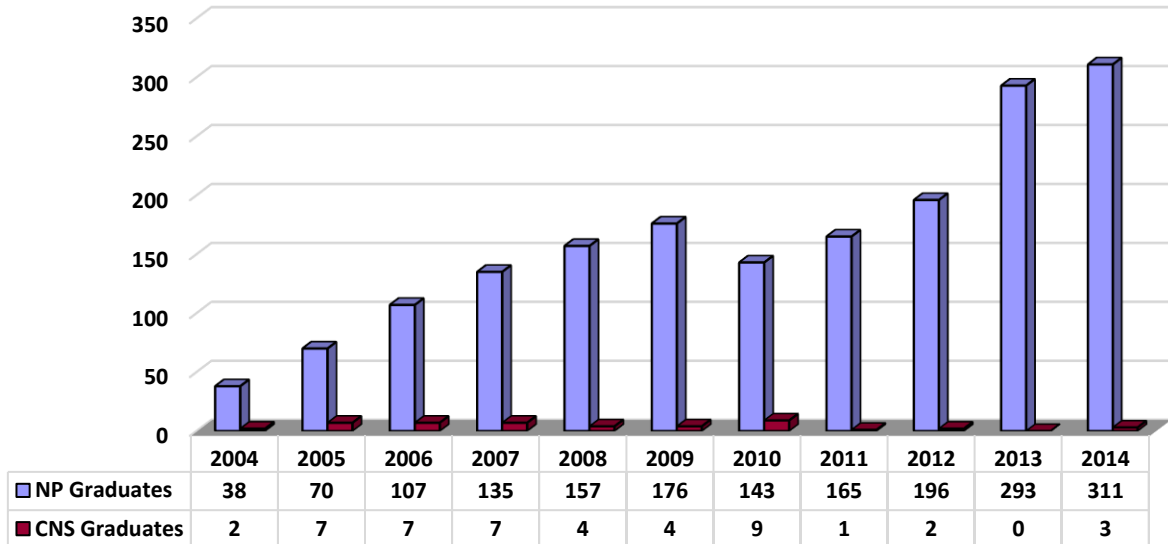
DOCTORAL ADMISSIONS AND GRADUATES



Advanced Practice Graduates

There were no Clinical Nurse Specialist graduates in 2014. In 2015 NP graduates increased 30% from 311 in 2014 to 403 in 2015.

ADVANCED PRACTICE GRADUATES



SUMMARY

The systematic and routine collection of nursing program data assists the Arizona State Board of Nursing, nursing programs, nurses, and the public in understanding nursing education enrollment trends. Such data informs public policy. Overall the 2015 data is encouraging as more nurses are investing in attaining bachelor and graduate degrees. A better educated nursing workforce is associated with increased patient safety. The increased admissions and graduates in master's programs is encouraging as these graduates will be educationally prepared to take faculty positions. Nursing programs are attracting more diverse students. In 2015, the percent of Hispanic and Black nursing students reached levels consistent with the Arizona population for the first time. It is postulated that a diverse health care workforce will alleviate racial and ethnic health care disparities. This report provides additional evidence that Arizona is well positioned to meet shortages of nurses with basic RN preparation. However, the decision of one program to cease admissions for a semester influenced the data and exposes an underlying weakness in program infrastructure when a state relies on a few large programs to supply the RN workforce and capacity is limited by lack of qualified faculty and appropriate clinical learning sites. With the decreasing number of LPN programs, applicants, and graduates, and a rapidly aging demographic profile, there may be shortages of LPNs in the future. Highlights of the report include.

- Admission statistics were heavily influenced by one program's decision to cease summer semester admissions thereby lowering admissions by 200 students in 2015
- Total nursing program enrollments fell slightly in 2015 with decreases in both RN and LPN programs
- New admissions to nursing programs decreased by 5%, with admissions to BSN programs decreasing 10% and admissions to private programs decreasing by 14%
- There are unfilled placements in all types of programs with the majority (59%) in private programs
- The number of qualified students who were not admitted to RN programs increased by 20%; 80% of these students applied to public programs
- There are lower numbers of students admitted to LPN programs with fewer students being denied or deferred an admission, indicating lower demand for LPN education
- RN graduates increased 8.5%; PN Graduates decreased 32%
- 46% of RN graduates received a BSN
- 72% of RN and 57% of PN nursing students graduated in the optimal time frame according to the published curriculum
- BSN completion admissions remained stable
- 16% of nursing students are male; 32% of nursing students are Hispanic which matches the Arizona population which is 31% Hispanic
- Master degree graduates and admissions increased by more than 100%; Doctoral graduates increased by 33%

To view the total report, please visit www.azbn.gov

REFERENCES

- American Association of Colleges of Nursing (2007). *Fact sheet: The impact of education on nursing practice*. Retrieved from: <http://www.aacn.nchc.edu/EdImpact/index.htm>.
- Aiken, L., Clarke, S., Cheung, R., Sloane, D., & Silber, J. (2003). Educational levels of hospital nurses and surgical patient mortality. *JAMA*. 290 (12)
- Auerbach, D., Buerhaus, P. & Staiger, D. (2011). Registered nurse supply grows faster than projected amid surge in new entrants ages 23-26. *Health Affairs*, 30(12) 2286-2291.
- Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Education nurses: A call for radical transformation*. San Francisco, AZ: Jossey-Bass.
- Buerhaus, P., Staiger, D. & Auerbach, D. (2009) *The future of the nursing workforce in the United States: Data, trends, and implications*. Boston: Jones and Bartlett.
- Committee on Health, Education, Labor, and Pensions: United States Senate. (July 30, 2012). *For-profit Higher Education: the failure to safeguard the federal investment and ensure students success*. Available at <http://www.gpo.gov/fdays/>.
- Giddens, J. (2009). Changing paradigms and challenging assumptions: Redefining quality and NCLEX-RN pass rates. *Journal of Nursing Education*, 48 (3), 123-124.
- Institute of Medicine (IOM). (2011). *The future of nursing: Leading change, advancing health*. Washington, DC: National Academies Press.
- National Council of State Boards of Nursing. NCLEX *Quarterly Reports*. Available from Arizona State Board of Nursing, 4747 N 7th St, STE 200, Phoenix, Arizona 85014; www.azbn.gov.
- National Council of State Boards of Nursing (NCSBN). *A National Survey on Elements of Nursing Education*, July 2006.
- National League for Nursing (NLN) (2012). The fair testing imperative in nursing education: a living document from the National League for Nursing. *NLN Vision Series: Transforming Education—Leading the Call to Reform*. Retrieved from http://www.nln.org/aboutnln/livingdocuments/pdf/nlnvision_4.pdf
- NURSYS® Workforce Data Report. (2010-2011). Arizona Workforce Data Sample 01/01/2010 to 12/31/2010. Available upon request to prandolph@azbn.gov.
- Randolph, P. (2014). Arizona State Board of Nursing Summary and Analysis of Annual Reports from Arizona Nursing Education Programs 2013. Available at www.azbn.gov

Randolph, P. (2015). Arizona State Board of Nursing: Employment of Newly Licensed RNs. Available at www.azbn.gov.

Starck, P., Love, K. & McPherson, R. (2008) Calculating graduation rates. *Journal of Professional Nursing*, 24(4) 197-204

United States Census Bureau Quick Facts--Arizona (2015) accessed at <http://www.census.gov/quickfacts/table/PST045215/04> on 7/20/16

**APPENDIX A
ARIZONA NURSING
PROGRAM OUTCOME INDEX©
2015**

Arizona College	100
Arizona State University	171.91
Arizona Western College	136.71
Breckinridge School of Nursing/ITT Technical Institute	123.35
Brookline College - BSN	147.19
Brown Mackie College - Phoenix	110
Brown Mackie College - Tucson	53.33
Carrington College	144.04
Central Arizona College	174.83
Chamberlain College	143.64
Cochise College	145.06
Coconino Community College	175
East Valley Institute of Technology	115
Eastern Arizona College	140.96
Fortis College	131.67
Gateway Community College Fast Track PN	146.27
Grand Canyon University	159.92
MaricopaNursing @ Chandler-Gilbert CC	156.19
MaricopaNursing @ Estrella Mountain CC	159.33
MaricopaNursing @ GateWay Community College	162.71
MaricopaNursing @ Glendale Community College	164.41
MaricopaNursing @ Mesa Community College	151.63
MaricopaNursing @ Paradise Valley CC	175.62
MaricopaNursing @ Phoenix College	139.18
MaricopaNursing @ Scottsdale Community College	134.78
Mohave Community College ADN	172.3
Mohave Community College LPN	149.43
Northern Arizona University	181.97
Northland Pioneer College	173.78
Pima Community College - West Campus	179.72
Pima Community College CTD	163.8
Pima Medical Institute - Mesa Campus	183.67
Pima Medical Institute - Tucson Campus	158.93
University of Arizona	183.62
University of Phoenix	147.7
Yavapai College	164.67

The Program Outcome Index© is the program's self-reported "on-time" graduation rate plus the first time NCLEX pass rate within the calendar year. A maximum score of 200 is possible.